Nuclear Instruments and Methods in Physics Research B 129 (1997) 557–563

ELSEVIER

NIM B
Beam Interactions with Materials & Atoms

Author index

Abdel-Hamid, H.M., H.M. Saad, S.M. Morsy and M.A. Hussein, Influence of N^+ ion bombardment on LiF (TLD-100) sensitivity . . . 129 (1997) 73
Agrawal, H.M., see Rao, B.V. . . . 129 (1997) 487
Aliabadi, H., see Ben-Itzhak, I. . . . 129 (1997) 117
An, Z., see He, F.Q. . . . 129 (1997) 445
Anashkevich, A.F., see Kholmetskii, A.L. . . . 129 (1997) 110
Ashry, A., Optimization study for small angle neutron scattering spectrometer at the ET-RR-1 reactor . . . 129 (1997) 519
Auth, C., see Hecht, T. . . . 129 (1997) 194
Avasthi, D.K., see Tripathi, A. . . . 129 (1997) 423
Azarko, I.I., see Popok, V.N. . . . 129 (1997) 60

Barone Tonghi, L., see Torrisi, L. . . . 129 (1997) 147
Baruchel, J., see Ohler, M. . . . 129 (1997) 257
Bastin, T., C. Dehove, P.D. Dumont, H. Garnir, A. Marchal, D. Strivay and G. Weber, Automatic external filling for the ion source gas bottle of a Van de Graaff accelerator . . . 129 (1997) 548
Beaumevieille, H., see Boudouma, Y. . . . 129 (1997) 305
Behrisch, R., see Plamann, K. . . . 129 (1997) 501
Bellia, G., see Torrisi, L. . . . 129 (1997) 147
Belykh, S.F., I.S. Bitensky, D. Mullajanov and U.Kh. Rasulev, Nonlinear effects in cluster emission from solids induced by molecular ion impact . . . 129 (1997) 451
Ben-Itzhak, I., E. Wells, V. Krishnamurthi, K.D. Carnes, H. Aliabadi, U. Mikkelsen, O.L. Weaver and B.D. Esry, An experimental method for evaluating the H_2 and D_2 contamination levels in a HD bottle . . . 129 (1997) 117
Bendavid, A., see Martin, P.J. . . . 129 (1997) 207
Berg, S., see Martin, P.J. . . . 129 (1997) 207
Bernas, H., see Chaumont, J. . . . 129 (1997) 436
Betz, G., see Kornich, G.V. . . . 129 (1997) 459
Bhattacharjee, S., J. Zhang, V. Shutthanandan, P.K. Ray, N.R. Shivaparan and R.J. Smith, Application of secondary neutral mass spectrometry in low-energy sputtering yield measurements . . . 129 (1997) 123
Bitensky, I.S., see Belykh, S.F. . . . 129 (1997) 451
Bodemann, R., see Michel, R. . . . 129 (1997) 153
Boudouma, Y., A.C. Chami and H. Beaumevieille, Electron screening in the astrophysical $^6Li(p,^3He)^4He$ and $^7Li(p,\alpha)^4He$ cross sections from the density-functional theory . . . 129 (1997) 305
Božin, J.V., see Malović, G.N. . . . 129 (1997) 317
Breese, M.B.H. and P.J.M. Smulders, A study of channeling patterns from strained $Si_{1-x}Ge_x/Si$ bilayers close to ⟨011⟩ axes . . . 129 (1997) 511
Breese, M.B.H., see de Kerckhove, D.G. . . . 129 (1997) 534
Brenscheidt, F., S. Oswald, A. Mücklich, E. Wieser and W. Möller, Wear mechanisms in titanium implanted silicon nitride ceramics . . . 129 (1997) 483
Brink, C., see Shen, H. . . . 129 (1997) 203
Brossard, F., V.H. Etgens and A. Tadjeddine, In situ surface X-ray diffraction using a new electrochemical cell optimised for third generation synchrotron light sources . . . 129 (1997) 419
Brunel, M., see Roshchupkin, D.V. . . . 129 (1997) 414
Busemann, H., see Michel, R. . . . 129 (1997) 153

Campbell, J.L. and J.A. Maxwell, A cautionary note on the use of the Hypermet tailing function in X-ray spectrometry with Si(Li) detectors . . . 129 (1997) 297
Carnes, K.D., see Ben-Itzhak, I. . . . 129 (1997) 117
Chami, A.C., see Boudouma, Y. . . . 129 (1997) 305
Chaumont, J., H. Bernas, A. Kusnetsov, C. Clerc and L. Dumoulin, Giant sputtering rates from SiO (SiO_2) irradiated by carbon clusters (*Letter to the Editor*) . . . 129 (1997) 436
Chirita, V., B.A. Pailthorpe and R.E. Collins, Non-equilibrium energy and momentum accommodation coefficients of Ar atoms scattered from Ni(001) in the thermal regime: A molecular dynamics study . . . 129 (1997) 465

0168-583X/97/$17.00 © 1997 Elsevier Science B.V. All rights reserved

Chishiro, E., see Masugata, K. . . . 129 (1997) 106
Choi, B.S., see Lee, Y.S. . . . 129 (1997) 387
Choi, H.W., see Kim, J.K. . . . 129 (1997) 323
Chudakov, V.A., see Kholmetskii, A.L. . . . 129 (1997) 110
Clerc, C., see Chaumont, J. . . . 129 (1997) 436
Coban, A., see Nickel, J. . . . 129 (1997) 496
Collins, R.E., see Chirita, V. . . . 129 (1997) 465
Condé, H., see Michel, R. . . . 129 (1997) 153
Croft, M., see Lee, Y.S. . . . 129 (1997) 387
Cucinotta, F.A., see Tripathi, R.K. . . . 129 (1997) 11
Curello, G., R. Gwilliam, M. Harry, S. Jackson and B.J. Sealy, Beam-power heating effect on the synthesis of graded composition epitaxial $Si_{1-x}Ge_x$ alloy layers . . . 129 (1997) 377
Cuttone, G., see Torrisi, L. . . . 129 (1997) 147

Dai, Z., S. Wang, Z. Yang, C. Ren and F. Yang, Combining micro-PIXE and $\delta^{18}O$, $\delta^{13}C$ isotope analyses to reconstruct Lacustrine paleoenvironment . . . 129 (1997) 491
Danesh, P., see Kaschieva, S. . . . 129 (1997) 551
da Silveira, E.F., see Pereira, J.A.M. . . . 129 (1997) 21
Datta, S.K., see Tripathi, A. . . . 129 (1997) 423
Daunke, R., see Michel, R. . . . 129 (1997) 153
Davies, J.A., see Shen, H. . . . 129 (1997) 203
de Castro, C.S.C., see Pereira, J.A.M. . . . 129 (1997) 21
Dehove, C., see Bastin, T. . . . 129 (1997) 548
de Kerckhove, D.G., M.B.H. Breese and G.W. Grime, A beam rocking system for the Oxford nuclear microprobe: A new approach to channeling analysis . . . 129 (1997) 534
Delafond, J., see Misaelides, P. . . . 129 (1997) 221
Delbrouck-Habaru, J.M., I. Roelandts, D. Strivay and G. Weber, Use of the α parameter method to calculate matrix corrections for infinitely thick targets (TTPIXE) with two different incident beam energies . . . 129 (1997) 92
Dev, B.N., see Kuri, G. . . . 129 (1997) 35
Dittrich-Hannen, B., see Michel, R. . . . 129 (1997) 153
Dohmen, R., see Eckstein, W. . . . 129 (1997) 327
Dumont, P.D., see Bastin, T. . . . 129 (1997) 548
Dumoulin, L., see Chaumont, J. . . . 129 (1997) 436

Eckstein, W. and R. Dohmen, Isotope sputtering of molybdenum . . . 129 (1997) 327
Elfman, M., see Sjöland, K.A. . . . 129 (1997) 101
Esry, B.D., see Ben-Itzhak, I. . . . 129 (1997) 117
Estifanos, B., C. Yang, L. Johansson and K.G. Malmqvist, A PIXE study of clouded plagioclase from southern Sweden . . . 129 (1997) 83
Etgens, V.H., see Brossard, F. . . . 129 (1997) 419

Filges, D., see Michel, R. . . . 129 (1997) 153
Finkelstein, Y. and R. Moreh, Effect of the temperature variation of γ-sources on the resonance scattering cross section . . . 129 (1997) 250
Fomin, S.P., A. Jejcic, V.I. Kasilov, N.I. Lapin, J. Maillard, V.I. Noga, S.F. Shcherbak, N.F. Shul'ga and J. Silva, Investigation of the electron channeling by means of induced electronuclear reactions . . . 129 (1997) 29
Franchoo, S., see Vancraeynest, G. . . . 129 (1997) 65
Freund, A., see Ohler, M. . . . 129 (1997) 257

Galez, Ph., see Ohler, M. . . . 129 (1997) 257
Garnir, H., see Bastin, T. . . . 129 (1997) 548
Giardina, G., see Malaguti, F. . . . 129 (1997) 341
Gloris, M., see Michel, R. . . . 129 (1997) 153
Grime, G.W., see de Kerckhove, D.G. . . . 129 (1997) 534
Gröne, R., J. Hascik, V. Slugen, R. Lipka, P. Pietrzyk and K. Vitazek, A positron 1D-ACAR spectrometer for the study of ^{60}Co containing materials . . . 129 (1997) 284
Gurachevskii, V.L., see Kholmetskii, A.L. . . . 129 (1997) 110
Gurbich, A.F., Evaluation of non-Rutherford proton elastic scattering cross section for oxygen . . . 129 (1997) 311
Gurbich, A.F., PIGE with pulsed beam for high sensitivity (*Letter to the Editor*) . . . 129 (1997) 439
Gwilliam, R., see Curello, G. . . . 129 (1997) 377

Hamanaka, S., see Shizuma, K. 129 (1997) 401
Hammerl, C., see Wenzel, A. 129 (1997) 369
Han, T.J., see Lee, Y.S. 129 (1997) 387
Harry, M., see Curello, G. 129 (1997) 377
Hasai, H., see Shizuma, K. 129 (1997) 401
Hascik, J., see Gröne, R. 129 (1997) 284
Hashiguchi, Y., see Hayashi, K. 129 (1997) 233
Hautala, M., see Koponen, I. 129 (1997) 349
Hayashi, K., J. Sasaki, K. Sugiyama, O. Ichiko and Y. Hashiguchi, Friction properties and microstructural changes of SUS440C implanted with various metal ions 129 (1997) 233
He, F.Q., X.F. Peng, X.G. Long, Z.M. Luo and Z. An, K-shell ionization cross sections by electron bombardment at low energies 129 (1997) 445
Healy, M.J.F., Minimising carbon contamination during ion beam analysis 129 (1997) 130
Hecht, T., C. Auth and H. Winter, Scattering of fast He-atoms from single terraces of an Al(111)-surface 129 (1997) 194
Herpers, U., see Michel, R. 129 (1997) 153
Holmqvist, B., see Michel, R. 129 (1997) 153
Horiuchi, I., see Shizuma, K. 129 (1997) 401
Hussein, M.A., see Abdel-Hamid, H.M. 129 (1997) 73
Huyse, M., see Vancraeynest, G. 129 (1997) 65
Hvelplund, P., see Shen, H. 129 (1997) 203

Ichiko, O., see Hayashi, K. 129 (1997) 233
Imai, M., see Itoh, A. 129 (1997) 363
Imanishi, N., see Itoh, A. 129 (1997) 363
Inoue, M., see Tanaka, A. 129 (1997) 42
Itoh, A., H. Tsuchida, K. Miyabe, M. Imai and N. Imanishi, Kinetic energies of fragment ions produced in collisions of 2 MeV Si^{4+} with C_{60} 129 (1997) 363
Iwatani, K., see Shizuma, K. 129 (1997) 401

Jackson, S., see Curello, G. 129 (1997) 377
Jejcic, A., see Fomin, S.P. 129 (1997) 29
Jelenković, B.M., see Malović, G.N. 129 (1997) 317
Jeon, Y., see Lee, Y.S. 129 (1997) 387
Jeronymo, J.M.F., see Pereira, J.A.M. 129 (1997) 21
Jiang, X., see Zheng, W. 129 (1997) 543
Jing, Y., see Zheng, W. 129 (1997) 543
Johansson, L., see Estifanos, B. 129 (1997) 83

Kajiyama, G., see Shizuma, K. 129 (1997) 401
Kalantaryan, O.V., V.T. Kolesnik, S.I. Kononenko, V.I. Muratov and V.E. Storizhko, Silicon luminescence induced by bombardment with fast hydrogen ions 129 (1997) 77
Kanjilal, D., see Rao, B.V. 129 (1997) 487
Karpovich, I.A., see Popok, V.N. 129 (1997) 60
Kaschieva, S. and P. Danesh, Annealing of radiation defects in helium-implanted Si–SiO_2 structures (*Letter to the Editor*) 129 (1997) 551
Kasilov, V.I., see Fomin, S.P. 129 (1997) 29
Katardjiev, I., see Martin, P.J. 129 (1997) 207
Kataria, D.O., see Tripathi, A. 129 (1997) 423
Kemerink, G.J., see Laurens, C.R. 129 (1997) 429
Keune, W., see Toriyama, T. 129 (1997) 474
Kholmetskii, A.L., O.V. Misevich, M. Mashlan, V.A. Chudakov, A.F. Anashkevich and V.L. Gurachevskii, Air scintillation detector for conversion electrons Mössbauer spectroscopy (CEMS) 129 (1997) 110
Kiauka, W., see Toriyama, T. 129 (1997) 474
Kikuchi, M., see Tanaka, A. 129 (1997) 42
Kim, G.D., see Kim, J.K. 129 (1997) 323
Kim, J.K., Y.S. Kim, H.W. Choi, G.D. Kim, H.J. Woo and C.N. Whang, Measurement of elastic recoil cross sections of light nuclei by ^{35}Cl using inverse scattering 129 (1997) 323
Kim, Y.S., see Kim, J.K. 129 (1997) 323
Klencsár, Z., Mössbauer spectrum analysis by Evolution Algorithm 129 (1997) 527
Klug, B., see Michel, R. 129 (1997) 153
Kobayashi, Y., see Tanaka, A. 129 (1997) 42

Koborov, N.N., A.I. Kuzovlev, V.A. Kurnaev, V.S. Remizovich and N.N. Trifonov, Energy distributions of particles transmitted through free foils at oblique incidence . . . 129 (1997) 5
Kolesnik, V.T., see Kalantaryan, O.V. . . . 129 (1997) 77
Königer, A., see Wenzel, A. . . . 129 (1997) 369
Kononenko, S.I., see Kalantaryan, O.V. . . . 129 (1997) 77
Koponen, I., M. Hautala and O.-P. Sievänen, Simulations of self-affine roughening and ripple formation on ion bombarded amorphous carbon surfaces . . . 129 (1997) 349
Kornich, G.V. and G. Betz, Calculation of marker distortion at elevated temperatures under low energy ion bombardment . . . 129 (1997) 459
Kozlov, I.P., see Popok, V.N. . . . 129 (1997) 60
Kozłowski, T., see Piotrowski, A. . . . 129 (1997) 410
Krins, A., see Michel, R. . . . 129 (1997) 153
Krishnamurthi, V., see Ben-Itzhak, I. . . . 129 (1997) 117
Kristiansson, P., see Sjöland, K.A. . . . 129 (1997) 101
Kruijer, S., see Toriyama, T. . . . 129 (1997) 474
Kubik, P.-W., see Michel, R. . . . 129 (1997) 153
Kuri, G., B. Sundaravel, D.P. Mahapatra and B.N. Dev, Rutherford backscattering spectrometry and channeling studies on MeV Au-implanted GaAs(100) crystals . . . 129 (1997) 35
Kurnaev, V.A., see Koborov, N.N. . . . 129 (1997) 5
Kushwaha, R.P.S., see Rao, B.V. . . . 129 (1997) 487
Kusnetsov, A., see Chaumont, J. . . . 129 (1997) 436
Kuzovlev, A.I., see Koborov, N.N. . . . 129 (1997) 5

Lagarec, K. and D.G. Rancourt, Extended Voigt-based analytic lineshape method for determining N-dimensional correlated hyperfine parameter distributions in Mössbauer spectroscopy . . . 129 (1997) 266
Lange, H.-J., see Michel, R. . . . 129 (1997) 153
Lapin, N.I., see Fomin, S.P. . . . 129 (1997) 29
Laskus, M., see Piotrowski, A. . . . 129 (1997) 410
Laurens, C.R., L. Venema, G.J. Kemerink and L. Niesen, Soft-landing deposition of mass-separated radioactive isotopes . . . 129 (1997) 429
Lee, Y.S., C.N. Whang, Y. Jeon, B.S. Choi, T.J. Han, J.J. Woo and M. Croft, Study of the L_3 edges of ion-beam-mixed Pd–Cu alloys . by X-ray absorption spectroscopy . . . 129 (1997) 387
Leya, I., see Michel, R. . . . 129 (1997) 153
Licandro, M., see Torrisi, L. . . . 129 (1997) 147
Liljequist, D., see Toriyama, T. . . . 129 (1997) 474
Lipka, R., see Gröne, R. . . . 129 (1997) 284
Long, X.G., see He, F.Q. . . . 129 (1997) 445
Lu, X., see Shen, D. . . . 129 (1997) 392
Luo, Z.M., see He, F.Q. . . . 129 (1997) 445
Lüpke, M., see Michel, R. . . . 129 (1997) 153

Ma, H., see Zheng, W. . . . 129 (1997) 543
Macedo, W.A.A., see Toriyama, T. . . . 129 (1997) 474
Mahapatra, D.P., see Kuri, G. . . . 129 (1997) 35
Maillard, J., see Fomin, S.P. . . . 129 (1997) 29
Malaguti, F., G. Giardina and P. Olivo, Dechanneling in single-crystals due to in-flight secondary decay: a method for measuring short nuclear lifetimes . . . 129 (1997) 341
Malmborg, P., see Michel, R. . . . 129 (1997) 153
Malmqvist, K.G., see Estifanos, B. . . . 129 (1997) 83
Malmqvist, K.G., see Sjöland, K.A. . . . 129 (1997) 101
Malović, G.N., J.V. Božin, B.M. Jelenković and Z.Lj. Petrović, Electron excitation coefficients for 2p state of neon . 129 (1997) 317
Mandal, S., see Tripathi, A. . . . 129 (1997) 423
Marchal, A., see Bastin, T. . . . 129 (1997) 548
Martin, P.J., A. Bendavid, L.S. Wielunski, I. Katardjiev and S. Berg, Preferential sputtering effects in the deposition of TiAl films by filtered cathodic arc deposition . . . 129 (1997) 207
Mashlan, M., see Kholmetskii, A.L. . . . 129 (1997) 110
Masugata, K., E. Chishiro, K. Yatsui and T. Tazima, Diagnosis of the profile of ion sources in point pinch diode . . . 129 (1997) 106
Maxwell, J.A., see Campbell, J.L. . . . 129 (1997) 297
Michel, R., R. Bodemann, H. Busemann, R. Daunke, M. Gloris, H.-J. Lange, B. Klug, A. Krins, I. Leya, M. Lüpke, S. Neumann, H. Reinhardt, M. Schnatz-Büttgen, U. Herpers, Th. Schiekel, F. Sudbrock, B. Holmqvist, H. Condé, P. Malmborg, M. Suter, B. Dittrich-Hannen, P.-W. Kubik, H.-A. Synal and D. Filges, Cross sections for the

production of residual nuclides by low- and medium-energy protons from the target elements C, N, O, Mg, Al, Si, Ca, Ti, V, Mn, Fe, Co, Ni, Cu, Sr, Y, Zr, Nb, Ba and Au 129 (1997) 153
Mikkelsen, U., see Ben-Itzhak, I. 129 (1997) 117
Misaelides, P., F. Noli, J.P. Riviere and J. Delafond, Surface characterisation and corrosion behaviour of SiC-coated AISI 321 stainless steel 129 (1997) 221
Misevich, O.V., see Kholmetskii, A.L. 129 (1997) 110
Miyabe, K., see Itoh, A. 129 (1997) 363
Möller, W., see Brenscheidt, F. 129 (1997) 483
Moons, R., see Vancraeynest, G. 129 (1997) 65
Moore, A.W., see Ohler, M. 129 (1997) 257
Moreh, R., see Finkelstein, Y. 129 (1997) 250
Morsy, S.M., see Abdel-Hamid, H.M. 129 (1997) 73
Moser, N., see Toriyama, T. 129 (1997) 474
Mu, Y., see Xia, Y. 129 (1997) 356
Mücklich, A., see Brenscheidt, F. 129 (1997) 483
Mullajanov, D., see Belykh, S.F. 129 (1997) 451
Muratov, V.I., see Kalantaryan, O.V. 129 (1997) 77

Neumann, S., see Michel, R. 129 (1997) 153
Nickel, J., A. Coban and B.S. Yilbas, Analysis of a plasma nitrided Ti–6Al–4V spur gear surface 129 (1997) 496
Niesen, L., see Laurens, C.R. 129 (1997) 429
Noga, V.I., see Fomin, S.P. 129 (1997) 29
Noli, F., see Misaelides, P. 129 (1997) 221

Odzhaev, V.B., see Popok, V.N. 129 (1997) 60
Ohler, M., J. Baruchel, A.W. Moore, Ph. Galez and A. Freund, Direct observation of mosaic blocks in highly oriented pyrolytic graphite 129 (1997) 257
Olivo, P., see Malaguti, F. 129 (1997) 341
Oswald, S., see Brenscheidt, F. 129 (1997) 483

Pailthorpe, B.A., see Chirita, V. 129 (1997) 465
Pallon, J., see Sjöland, K.A. 129 (1997) 101
Penev, I., see Uzunov, N. 129 (1997) 137
Peng, X.F., see He, F.Q. 129 (1997) 445
Pereira, J.A.M., C.S.C. de Castro, J.M.F. Jeronymo, C.R. Ponciano, E.F. da Silveira and K. Wien, Energies and yields of secondary ions ejected from alkali halides by a 0.18–6.0 MeV nitrogen beam 129 (1997) 21
Petrović, Z.Lj., see Malović, G.N. 129 (1997) 317
Pietrzyk, P., see Gröne, R. 129 (1997) 284
Piotrowski, A., T. Kozłowski and M. Laskus, Study of negative ion emission from the tubular ionizer 129 (1997) 410
Plamann, K. and R. Behrisch, Elastic recoil detection analysis (ERDA) of thick films 129 (1997) 501
Ponciano, C.R., see Pereira, J.A.M. 129 (1997) 21
Popok, V.N., V.B. Odzhaev, I.P. Kozlov, I.I. Azarko, I.A. Karpovich and D.V. Sviridov, Ion beam effects in polymer films: Structure evolution of the implanted layer 129 (1997) 60

Rabie, N., Study of the properties of lithium potassium sulphate doped with different concentration of thallium 129 (1997) 80
Raffaele, L., see Torrisi, L. 129 (1997) 147
Rancourt, D.G., see Lagarec, K. 129 (1997) 266
Rao, B.V., H.M. Agrawal, R.P.S. Kushwaha, D. Kanjilal and S.K. Sharma, Plastic flow in Metglass 2204 under swift heavy ion irradiation 129 (1997) 487
Rasulev, U.Kh., see Belykh, S.F. 129 (1997) 451
Rauschenbach, B., see Wenzel, A. 129 (1997) 369
Ray, P.K., see Bhattacharjee, S. 129 (1997) 123
Reinhardt, H., see Michel, R. 129 (1997) 153
Remizovich, V.S., see Koborov, N.N. 129 (1997) 5
Ren, C., see Dai, Z. 129 (1997) 491
Riviere, J.P., see Misaelides, P. 129 (1997) 221
Roelandts, I., see Delbrouck-Habaru, J.M. 129 (1997) 92
Roshchupkin, D.V., I.A. Schelokov, R. Tucoulou and M. Brunel, X-ray diffraction on a multilayer mirror modulated by surface acoustic waves 129 (1997) 414
Rovelli, A., see Torrisi, L. 129 (1997) 147

Saad, H.M., see Abdel-Hamid, H.M. 129 (1997) 73
Salah, H. and B. Touchrift, Multielemental analysis of zeolites using prompt nuclear reactions gamma rays 129 (1997) 261
Sasaki, J., see Hayashi, K. 129 (1997) 233
Schelokov, I.A., see Roshchupkin, D.V. 129 (1997) 414
Schiekel, Th., see Michel, R. 129 (1997) 153
Schnatz-Büttgen, M., see Michel, R. 129 (1997) 153
Sealy, B.J., see Curello, G. 129 (1997) 377
Sharma, S.K., see Rao, B.V. 129 (1997) 487
Shcherbak, S.F., see Fomin, S.P. 129 (1997) 29
Shen, D., X. Lu, Z. Xia, X. Wang and Q. Zhao, Damage production in silicon by MeV Si cluster irradiation 129 (1997) 392
Shen, H., C. Brink, P. Hvelplund, S. Shiryaev, P.X. Shi and J.A. Davies, Fullerene ion (C_{60}^{+}) damage in Si at 25°C . . 129 (1997) 203
Shi, P.X., see Shen, H. 129 (1997) 203
Shimizu, T., see Tanaka, A. 129 (1997) 42
Shiryaev, S., see Shen, H. 129 (1997) 203
Shivaparan, N.R., see Bhattacharjee, S. 129 (1997) 123
Shizuma, K., K. Iwatani, H. Hasai, S. Hamanaka, X.Q. Wen, I. Horiuchi and G. Kajiyama, PIXE analysis of gallstones: trace element analysis and millibeam scanning of stone sections 129 (1997) 401
Shul'ga, N.F., see Fomin, S.P. 129 (1997) 29
Shutthanandan, V., see Bhattacharjee, S. 129 (1997) 123
Sievänen, O.-P., see Koponen, I. 129 (1997) 349
Silva, J., see Fomin, S.P. 129 (1997) 29
Sjöland, K.A., P. Kristiansson, M. Elfman, K.G. Malmqvist, J. Pallon, R.J. Utui and C. Yang, Subcellular analysis of boron with a nuclear microprobe 129 (1997) 101
Skvarč, J., Stress-induced anisotropic etching in polymer track detectors 129 (1997) 397
Slugen, V., see Gröne, R. 129 (1997) 284
Smith, R.J., see Bhattacharjee, S. 129 (1997) 123
Smulders, P.J.M., see Breese, M.B.H. 129 (1997) 511
Storizhko, V.E., see Kalantaryan, O.V. 129 (1997) 77
Strivay, D., see Bastin, T. 129 (1997) 548
Strivay, D., see Delbrouck-Habaru, J.M. 129 (1997) 92
Sudbrock, F., see Michel, R. 129 (1997) 153
Sugiyama, K., see Hayashi, K. 129 (1997) 233
Sundaravel, B., see Kuri, G. 129 (1997) 35
Suter, M., see Michel, R. 129 (1997) 153
Sviridov, D.V., see Popok, V.N. 129 (1997) 60
Synal, H.-A., see Michel, R. 129 (1997) 153

Tadjeddine, A., see Brossard, F. 129 (1997) 419
Tan, C., see Xia, Y. 129 (1997) 356
Tanaka, A., H. Watanabe, T. Shimizu, M. Inoue, M. Kikuchi, Y. Kobayashi and S. Tano, Penetration controlled irradiation with ion beams for biological study 129 (1997) 42
Tano, S., see Tanaka, A. 129 (1997) 42
Tazima, T., see Masugata, K. 129 (1997) 106
Toriyama, T., N. Moser, S. Kruijer, W. Keune, W. Kiauka, W.A.A. Macedo and D. Liljequist, Depth-selective conversion-electron Mössbauer spectroscopy (DCEMS): Effect of low-temperature Ar-ion bombardment on iron-surface layers 129 (1997) 474
Torrisi, L., G. Cuttone, A. Rovelli, G. Bellia, L. Barone Tonghi, L. Raffaele and M. Licandro, Energy loss measurements of 27 MeV protons irradiating water-equivalent materials 129 (1997) 147
Touchrift, B., see Salah, H. 129 (1997) 261
Trifonov, N.N., see Koborov, N.N. 129 (1997) 5
Tripathi, A., S. Mandal, D.O. Kataria, D.K. Avasthi and S.K. Datta, A Bragg curve spectroscopy detector for ERDA studies 129 (1997) 423
Tripathi, R.K., J.W. Wilson and F.A. Cucinotta, Accurate universal parameterization of absorption cross sections II — neutron absorption cross sections 129 (1997) 11
Tsuchida, H., see Itoh, A. 129 (1997) 363
Tucoulou, R., see Roshchupkin, D.V. 129 (1997) 414

Utui, R.J., see Sjöland, K.A. 129 (1997) 101
Uzunov, N. and I. Penev, A method for quantitative analysis of adjacent elements using particle-induced gamma emission (*Letter to the Editor*) 129 (1997) 137

Vancraeynest, G., S. Franchoo, M. Huyse and R. Moons, Optimisation and modelling of electrochemically etched polycarbonate track detectors . . . 129 (1997) 65
Venema, L., see Laurens, C.R. . . . 129 (1997) 429
Vitazek, K., see Gröne, R. . . . 129 (1997) 284

Wang, S., see Dai, Z. . . . 129 (1997) 491
Wang, X., see Shen, D. . . . 129 (1997) 392
Watanabe, H., see Tanaka, A. . . . 129 (1997) 42
Weaver, O.L., see Ben-Itzhak, I. . . . 129 (1997) 117
Weber, G., see Bastin, T. . . . 129 (1997) 548
Weber, G., see Delbrouck-Habaru, J.M. . . . 129 (1997) 92
Wells, E., see Ben-Itzhak, I. . . . 129 (1997) 117
Wen, X.Q., see Shizuma, K. . . . 129 (1997) 401
Wenzel, A., C. Hammerl, A. Königer and B. Rauschenbach, Formation of titanium carbide by high-fluence carbon ion implantation . . . 129 (1997) 369
Whang, C.N., see Kim, J.K. . . . 129 (1997) 323
Whang, C.N., see Lee, Y.S. . . . 129 (1997) 387
Wielunski, L.S., see Martin, P.J. . . . 129 (1997) 207
Wien, K., see Pereira, J.A.M. . . . 129 (1997) 21
Wieser, E., see Brenscheidt, F. . . . 129 (1997) 483
Wilson, J.W., see Tripathi, R.K. . . . 129 (1997) 11
Winter, H., see Hecht, T. . . . 129 (1997) 194
Woo, H.J., see Kim, J.K. . . . 129 (1997) 323
Woo, J.J., see Lee, Y.S. . . . 129 (1997) 387

Xia, Y., Y. Mu, C. Tan, Y. Xing and H. Yang, Reaction channels and reaction probability for C_{60}–C_{60} collisions . . . 129 (1997) 356
Xia, Z., see Shen, D. . . . 129 (1997) 392
Xian, D., see Zheng, W. . . . 129 (1997) 543
Xing, Y., see Xia, Y. . . . 129 (1997) 356

Yang, C., see Estifanos, B. . . . 129 (1997) 83
Yang, C., see Sjöland, K.A. . . . 129 (1997) 101
Yang, F., see Dai, Z. . . . 129 (1997) 491
Yang, H., see Xia, Y. . . . 129 (1997) 356
Yang, Z., see Dai, Z. . . . 129 (1997) 491
Yatsui, K., see Masugata, K. . . . 129 (1997) 106
Yilbas, B.S., see Nickel, J. . . . 129 (1997) 496

Zhang, J., see Bhattacharjee, S. . . . 129 (1997) 123
Zhao, Q., see Shen, D. . . . 129 (1997) 392
Zheng, W., X. Jiang, Y. Jing, H. Ma and D. Xian, Status of the 4W1C beamline and the diffuse scattering experimental station at the Beijing Synchrotron Radiation Facility . . . 129 (1997) 543

ELSEVIER

Nuclear Instruments and Methods in Physics Research B 129 (1997) 564–567

NIM B
Beam Interactions with Materials & Atoms

Subject index

Basic Data for Materials Modification and Analysis

Stopping powers of mylar for protons from 0.40 to 3.25 MeV, N. Shiomi-Tsuda, N. Sakamoto, H. Ogawa, M. Tanaka, M. Saito and U. Kitoba 129 (1997) 1
Energy distributions of particles transmitted through free foils at oblique incidence, N.N. Koborov, A.I. Kuzovlev, V.A. Kurnaev, V.S. Remizovich and N.N. Trifonov 129 (1997) 5
Accurate universal parameterization of absorption cross sections II — neutron absorption cross sections, R.K. Tripathi, J.W. Wilson and F.A. Cucinotta 129 (1997) 11
Stopping power of carbon for Si, Fe, Ni and Cu ions using the ERDA technique, V. Harikumar, A.P. Pathak, N. Nath, S. Kumar, S.K. Sharma, S.K. Hui and D.K. Avasthi 129 (1997) 143
Energy loss measurements of 27 MeV protons irradiating water-equivalent materials, L. Torrisi, G. Cuttone, A. Rovelli, G. Bellia, L. Barone Tonghi, L. Raffaele and M. Licandro 129 (1997) 147
Cross sections for the production of residual nuclides by low- and medium-energy protons from the target elements C, N, O, Mg, Al, Si, Ca, Ti, V, Mn, Fe, Co, Ni, Cu, Sr, Y, Zr, Nb, Ba and Au, R. Michel, R. Bodemann, H. Busemann, R. Daunke, M. Gloris, H.-J. Lange, B. Klug, A. Krins, I. Leya, M. Lüpke, S. Neumann, H. Reinhardt, M. Schnatz-Büttgen, U. Herpers, Th. Schiekel, F. Sudbrock, B. Holmqvist, H. Condé, P. Malmborg, M. Suter, B. Dittrich-Hannen, P.-W. Kubik, H.-A. Synal and D. Filges 129 (1997) 153
Electron screening in the astrophysical $^{6}Li(p,^{3}He)^{4}He$ and $^{7}Li(p,\alpha)^{4}He$ cross sections from the density-functional theory, Y. Boudouma, A.C. Chami and H. Beaumevieille 129 (1997) 305
Evaluation of non-Rutherford proton elastic scattering cross section for oxygen, A.F. Gurbich 129 (1997) 311
Electron excitation coefficients for 2p state of neon, G.N. Malović, J.V. Božin, B.M. Jelenković and Z.Lj. Petrović . . 129 (1997) 317
Measurement of elastic recoil cross sections of light nuclei by ^{35}Cl using inverse scattering, J.K. Kim, Y.S. Kim, H.W. Choi, G.D. Kim, H.J. Woo and C.N. Whang 129 (1997) 323
K-shell ionization cross sections by electron bombardment at low energies, F.Q. He, X.F. Peng, X.G. Long, Z.M. Luo and Z. An 129 (1997) 445

Atomic Collisions in Solids

Dependence of surface-compositional and angular distributions on the bulk composition in the sputtering of Cu–Pt and Cu–Ni alloys, L.-P. Zheng and R.-S. Li 129 (1997) 16
Energies and yields of secondary ions ejected from alkali halides by a 0.18–6.0 MeV nitrogen beam, J.A.M. Pereira, C.S.C. de Castro, J.M.F. Jeronymo, C.R. Ponciano, E.F. da Silveira and K. Wien 129 (1997) 21
Investigation of the electron channeling by means of induced electronuclear reactions, S.P. Fomin, A. Jejcic, V.I. Kasilov, N.I. Lapin, J. Maillard, V.I. Noga, S.F. Shcherbak, N.F. Shul'ga and J. Silva 129 (1997) 29
Rutherford backscattering spectrometry and channeling studies on MeV Au-implanted GaAs(100) crystals, G. Kuri, B. Sundaravel, D.P. Mahapatra and B.N. Dev 129 (1997) 35
Scattering of fast He-atoms from single terraces of an Al(111)-surface, T. Hecht, C. Auth and H. Winter 129 (1997) 194
Secondary electron yields from the bombardment of Al_2O_3 by protons, deuterons, alpha-particles and positively charged hydrogen molecules at energies in the range of 10 to 80 MeV, C.M. Castaneda, L. McGarry, C. Cahill and T. Essert 129 (1997) 199
Fullerene ion (C_{60}^{+}) damage in Si at 25°C, H. Shen, C. Brink, P. Hvelplund, S. Shiryaev, P.X. Shi and J.A. Davies . . . 129 (1997) 203
Isotope sputtering of molybdenum, W. Eckstein and R. Dohmen 129 (1997) 327
Dechanneling in single-crystals due to in-flight secondary decay: a method for measuring short nuclear lifetimes, F. Malaguti, G. Giardina and P. Olivo 129 (1997) 341
Simulations of self-affine roughening and ripple formation on ion bombarded amorphous carbon surfaces, I. Koponen, M. Hautala and O.-P. Sievänen 129 (1997) 349
Reaction channels and reaction probability for C_{60}–C_{60} collisions, Y. Xia, Y. Mu, C. Tan, Y. Xing and H. Yang . . . 129 (1997) 356
Kinetic energies of fragment ions produced in collisions of 2 MeV Si^{4+} with C_{60}, A. Itoh, H. Tsuchida, K. Miyabe, M. Imai and N. Imanishi 129 (1997) 363

0168-583X/97/$17.00 © 1997 Elsevier Science B.V. All rights reserved

Giant sputtering rates from SiO (SiO_2) irradiated by carbon clusters (*Letter to the Editor*), J. Chaumont, H. Bernas, A. Kusnetsov, C. Clerc and L. Dumoulin 129 (1997) 436
Nonlinear effects in cluster emission from solids induced by molecular ion impact, S.F. Belykh, I.S. Bitensky, D. Mullajanov and U.Kh. Rasulev 129 (1997) 451
Calculation of marker distortion at elevated temperatures under low energy ion bombardment, G.V. Kornich and G. Betz 129 (1997) 459
Non-equilibrium energy and momentum accommodation coefficients of Ar atoms scattered from Ni(001) in the thermal regime: A molecular dynamics study, V. Chirita, B.A. Pailthorpe and R.E. Collins 129 (1997) 465

Ion Beam Modification of Materials

Penetration controlled irradiation with ion beams for biological study, A. Tanaka, H. Watanabe, T. Shimizu, M. Inoue, M. Kikuchi, Y. Kobayashi and S. Tano 129 (1997) 42
C_2H_4 insertion into ion-bombarded porous silica, G.F. Cerofolini, G. Conti, G.M. Garbasso, C. Spaggiari and L. Meda 129 (1997) 49
Preferential sputtering effects in the deposition of TiAl films by filtered cathodic arc deposition, P.J. Martin, A. Bendavid, L.S. Wielunski, I. Katardjiev and S. Berg 129 (1997) 207
Deposition of amorphous hydrogenated carbon films due to hydrocarbon molecule ion-beam bombardment, W. Wang, J. Roth, W. Eckstein, R. Schwoerer, H. Plank and M. Du 129 (1997) 210
Possibility of waveguide formation on organic nonlinear crystal methyl para-hydroxy benzoate using high energy ion irradiation, P. Sreeramana Aithal, H.S. Nagaraja, P. Mohan Rao, V.P.N. Nampoori, C.P.G. Vallabhan and D.K. Avasthi 129 (1997) 217
Surface characterisation and corrosion behaviour of SiC-coated AISI 321 stainless steel, P. Misaelides, F. Noli, J.P. Riviere and J. Delafond 129 (1997) 221
Effect of fluorine ion implantation on the microstructure and microhardness of AISI 440C stainless steel, K. Hanamoto, M. Sasaki, T. Miyashita, Y. Kido, Y. Nakayama, Y. Kawamoto, M. Fujiwara and R. Kaigawa 129 (1997) 228
Friction properties and microstructural changes of SUS440C implanted with various metal ions, K. Hayashi, J. Sasaki, K. Sugiyama, O. Ichiko and Y. Hashiguchi 129 (1997) 233
Formation of titanium carbide by high-fluence carbon ion implantation, A. Wenzel, C. Hammerl, A. Könige r and B. Rauschenbach 129 (1997) 369
Beam-power heating effect on the synthesis of graded composition epitaxial $Si_{1-x}Ge_x$ alloy layers, G. Curello, R. Gwilliam, M. Harry, S. Jackson and B.J. Sealy 129 (1997) 377
Study of the L_3 edges of ion-beam-mixed Pd–Cu alloys by X-ray absorption spectroscopy, Y.S. Lee, C.N. Whang, Y. Jeon, B.S. Choi, T.J. Han, J.J. Woo and M. Croft 129 (1997) 387
Depth-selective conversion-electron Mössbauer spectroscopy (DCEMS): Effect of low-temperature Ar-ion bombardment on iron-surface layers, T. Toriyama, N. Moser, S. Kruijer, W. Keune, W. Kiauka, W.A.A. Macedo and D. Liljequist 129 (1997) 474
Wear mechanisms in titanium implanted silicon nitride ceramics, F. Brenscheidt, S. Oswald, A. Mücklich, E. Wieser and W. Möller 129 (1997) 483
Annealing of radiation defects in helium-implanted Si–SiO_2 structures (*Letter to the Editor*), S. Kaschieva and P. Danesh 129 (1997) 551

Effects of Radiation

Ion beam effects in polymer films: Structure evolution of the implanted layer, V.N. Popok, V.B. Odzhaev, I.P. Kozlov, I.I. Azarko, I.A. Karpovich and D.V. Sviridov 129 (1997) 60
Optimisation and modelling of electrochemically etched polycarbonate track detectors, G. Vancraeynest, S. Franchoo, M. Huyse and R. Moons 129 (1997) 65
Influence of N^+ ion bombardment on LiF (TLD-100) sensitivity, H.M. Abdel-Hamid, H.M. Saad, S.M. Morsy and M.A. Hussein 129 (1997) 73
Silicon luminescence induced by bombardment with fast hydrogen ions, O.V. Kalantaryan, V.T. Kolesnik, S.I. Kononenko, V.I. Muratov and V.E. Storizhko 129 (1997) 77
He^+ beam induced damage of silicon carbide studied by vibrational spectroscopy, H. Hobert, H. Dunken, F. Seifert, R. Menzel, T. Bachmann and W. Wesch 129 (1997) 244
Damage production in silicon by MeV Si cluster irradiation, D. Shen, X. Lu, Z. Xia, X. Wang and Q. Zhao 129 (1997) 392
Stress-induced anisotropic etching in polymer track detectors, J. Skvarč 129 (1997) 397
Plastic flow in Metglass 2204 under swift heavy ion irradiation, B.V. Rao, H.M. Agrawal, R.P.S. Kushwaha, D. Kanjilal and S.K. Sharma 129 (1997) 487

Analysis of Materials

Study of the properties of lithium potassium sulphate doped with different concentration of thallium, N. Rabie 129 (1997) 80
A PIXE study of clouded plagioclase from southern Sweden, B. Estifanos, C. Yang, L. Johansson and K.G. Malmqvist 129 (1997) 83
Use of the α parameter method to calculate matrix corrections for infinitely thick targets (TTPIXE) with two different incident beam energies, J.M. Delbrouck-Habaru, I. Roelandts, D. Strivay and G. Weber 129 (1997) 92
Subcellular analysis of boron with a nuclear microprobe, K.A. Sjöland, P. Kristiansson, M. Elfman, K.G. Malmqvist, J. Pallon, R.J. Utui and C. Yang 129 (1997) 101
A method for quantitative analysis of adjacent elements using particle-induced gamma emission (*Letter to the Editor*), N. Uzunov and I. Penev 129 (1997) 137
Effect of the temperature variation of γ-sources on the resonance scattering cross section, Y. Finkelstein and R. Moreh 129 (1997) 250
Direct observation of mosaic blocks in highly oriented pyrolytic graphite, M. Ohler, J. Baruchel, A.W. Moore, Ph. Galez and A. Freund 129 (1997) 257
Multielemental analysis of zeolites using prompt nuclear reactions gamma rays, H. Salah and B. Touchrift 129 (1997) 261
Extended Voigt-based analytic lineshape method for determining N-dimensional correlated hyperfine parameter distributions in Mössbauer spectroscopy, K. Lagarec and D.G. Rancourt 129 (1997) 266
PIXE analysis of gallstones: trace element analysis and millibeam scanning of stone sections, K. Shizuma, K. Iwatani, H. Hasai, S. Hamanaka, X.Q. Wen, I. Horiuchi and G. Kajiyama 129 (1997) 401
PIGE with pulsed beam for high sensitivity (*Letter to the Editor*), A.F. Gurbich 129 (1997) 439
Combining micro-PIXE and $\delta^{18}O$, $\delta^{13}C$ isotope analyses to reconstruct Lacustrine paleoenvironment, Z. Dai, S. Wang, Z. Yang, C. Ren and F. Yang 129 (1997) 491
Analysis of a plasma nitrided Ti–6Al–4V spur gear surface, J. Nickel, A. Coban and B.S. Yilbas 129 (1997) 496
Elastic recoil detection analysis (ERDA) of thick films, K. Plamann and R. Behrisch 129 (1997) 501
A study of channeling patterns from strained $Si_{1-x}Ge_x$/Si bilayers close to $\langle 011 \rangle$ axes, M.B.H. Breese and P.J.M. Smulders 129 (1997) 511

Ion Sources and Beam Optics

Diagnosis of the profile of ion sources in point pinch diode, K. Masugata, E. Chishiro, K. Yatsui and T. Tazima 129 (1997) 106
Study of negative ion emission from the tubular ionizer, A. Piotrowski, T. Kozłowski and M. Laskus 129 (1997) 410

Experimental Methods and Equipment

Air scintillation detector for conversion electrons Mössbauer spectroscopy (CEMS), A.L. Kholmetskii, O.V. Misevich, M. Mashlan, V.A. Chudakov, A.F. Anashkevich and V.L. Gurachevskii 129 (1997) 110
An experimental method for evaluating the H_2 and D_2 contamination levels in a HD bottle, I. Ben-Itzhak, E. Wells, V. Krishnamurthi, K.D. Carnes, H. Aliabadi, U. Mikkelsen, O.L. Weaver and B.D. Esry 129 (1997) 117
Application of secondary neutral mass spectrometry in low-energy sputtering yield measurements, S. Bhattacharjee, J. Zhang, V. Shutthanandan, P.K. Ray, N.R. Shivaparan and R.J. Smith 129 (1997) 123
Minimising carbon contamination during ion beam analysis, M.J.F. Healy 129 (1997) 130
A portable instrument for energy-dispersive X-ray fluorescence analysis of sulfur, A. Castellano and R. Cesareo 129 (1997) 281
A positron 1D-ACAR spectrometer for the study of ^{60}Co containing materials, R. Gröne, J. Hascik, V. Slugen, R. Lipka, P. Pietrzyk and K. Vitazek 129 (1997) 284
Polaroid H-sheet as a polarizer for 33 keV X-rays, S.P. Collins 129 (1997) 289
A cautionary note on the use of the Hypermet tailing function in X-ray spectrometry with Si(Li) detectors, J.L. Campbell and J.A. Maxwell 129 (1997) 297
X-ray diffraction on a multilayer mirror modulated by surface acoustic waves, D.V. Roshchupkin, I.A. Schelokov, R. Tucoulou and M. Brunel 129 (1997) 414
In situ surface X-ray diffraction using a new electrochemical cell optimised for third generation synchrotron light sources, F. Brossard, V.H. Etgens and A. Tadjeddine 129 (1997) 419
A Bragg curve spectroscopy detector for ERDA studies, A. Tripathi, S. Mandal, D.O. Kataria, D.K. Avasthi and S.K. Datta 129 (1997) 423
Soft-landing deposition of mass-separated radioactive isotopes, C.R. Laurens, L. Venema, G.J. Kemerink and L. Niesen 129 (1997) 429
Optimization study for small angle neutron scattering spectrometer at the ET-RR-1 reactor, A. Ashry 129 (1997) 519
Mössbauer spectrum analysis by Evolution Algorithm, Z. Klencsár 129 (1997) 527
A beam rocking system for the Oxford nuclear microprobe: A new approach to channeling analysis, D.G. de Kerckhove, M.B.H. Breese and G.W. Grime 129 (1997) 534

Status of the 4W1C beamline and the diffuse scattering experimental station at the Beijing Synchrotron Radiation Facility, W. Zheng, X. Jiang, Y. Jing, H. Ma and D. Xian 129 (1997) 543
Automatic external filling for the ion source gas bottle of a Van de Graaff accelerator, T. Bastin, C. Dehove, P.D. Dumont, H. Garnir, A. Marchal, D. Strivay and G. Weber 129 (1997) 548

Letters to the Editor

A method for quantitative analysis of adjacent elements using particle-induced gamma emission, N. Uzunov and I. Penev 129 (1997) 137
Giant sputtering rates from SiO (SiO_2) irradiated by carbon clusters, J. Chaumont, H. Bernas, A. Kusnetsov, C. Clerc and L. Dumoulin 129 (1997) 436
PIGE with pulsed beam for high sensitivity, A.F. Gurbich 129 (1997) 439
Annealing of radiation defects in helium-implanted Si–SiO_2 structures, S. Kaschieva and P. Danesh 129 (1997) 551

Errata

Erratum to: "Saddle-point effects in adiabatic to intermediate-energy ion–atom collisions" [Nucl. Instr. and Meth. B 124 (1997) 177–185], M. Pieksma 129 (1997) 300